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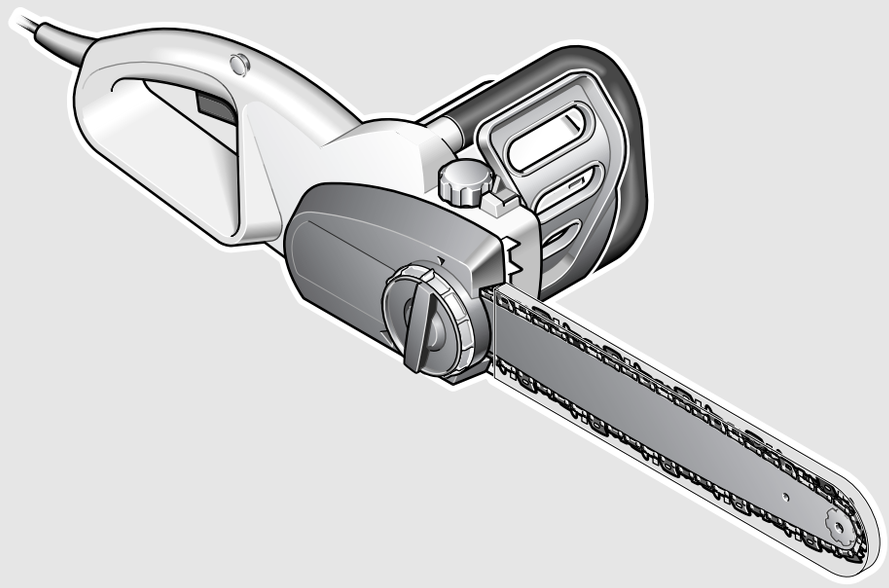

Robert Bosch GmbH
Power Tools Division
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Germany

www.bosch-pt.com

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30-19 S | 35-19 S | 40-19 S

BOSCH

de Originalbetriebsanleitung
en Original instructions
fr Notice originale
es Manual original
pt Manual original
it Istruzioni originali
nl Oorspronkelijke gebruiksaanwijzing
da Original brugsanvisning
sv Bruksanvisning i original
no Original driftsinstruks
fi Alkuperäiset ohjeet
el Πρωτότυπο οδηγιών χρήσης
tr Orijinal işletme talimatı

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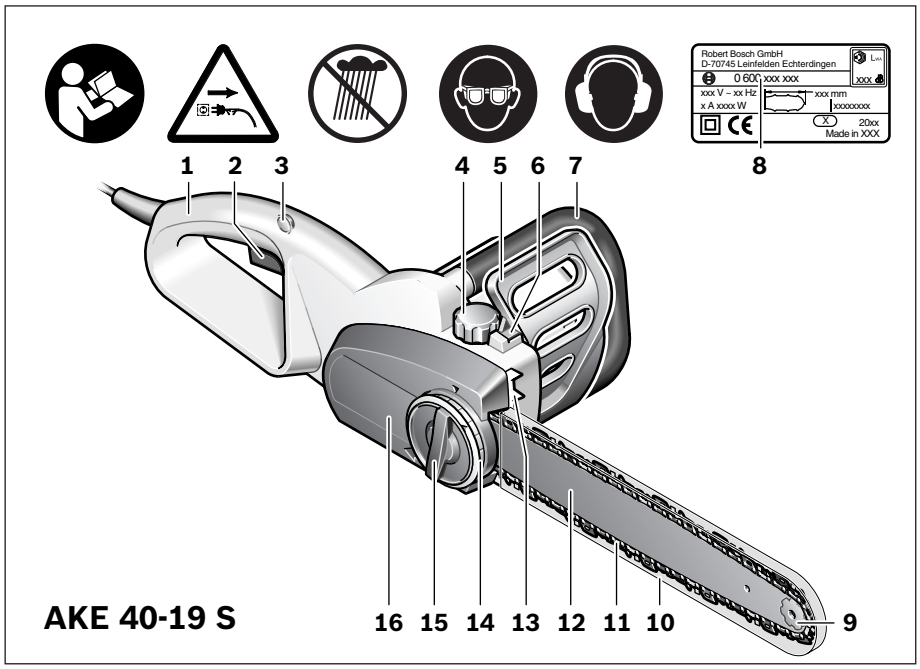

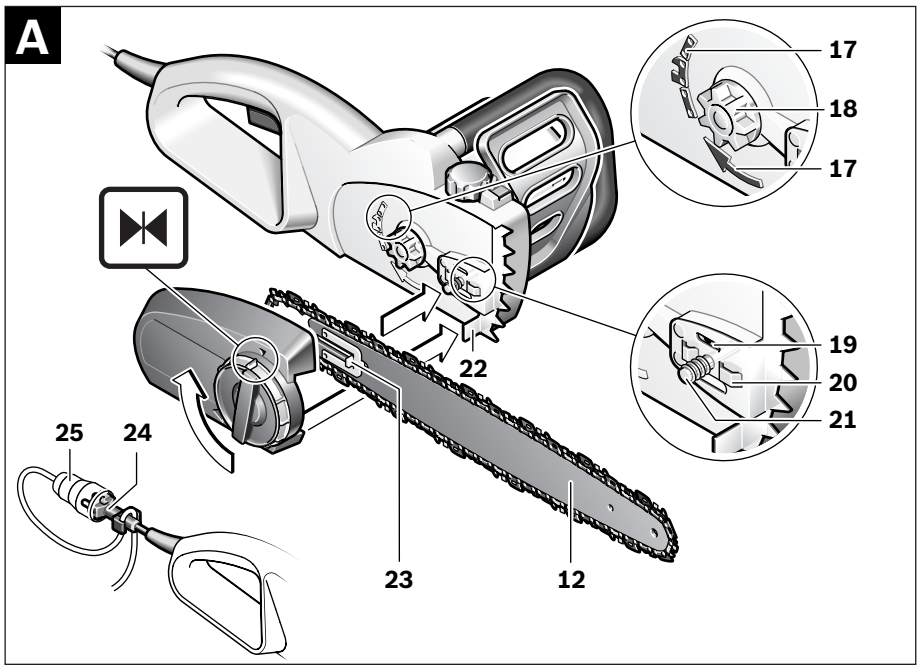

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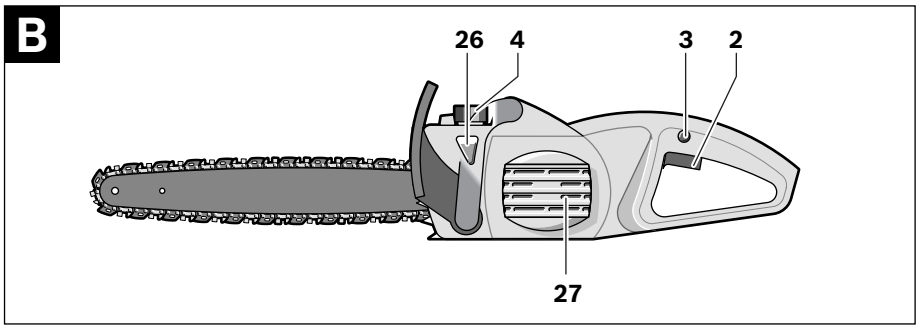

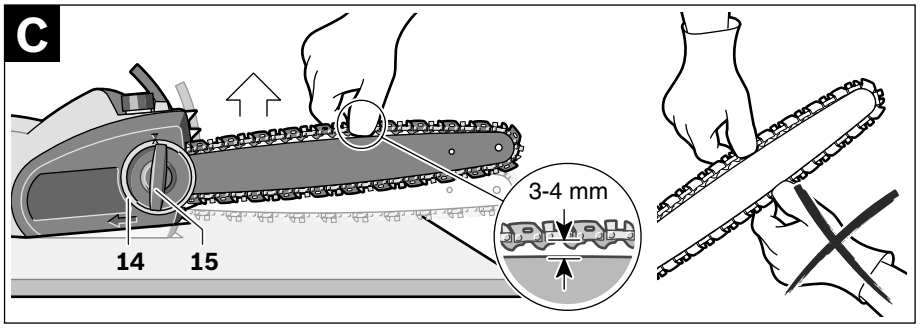

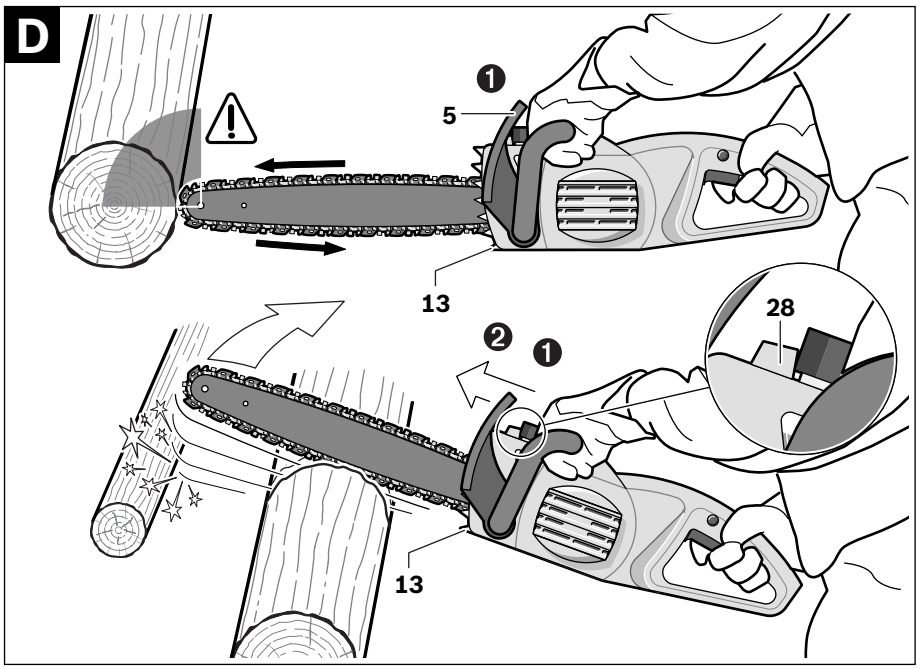

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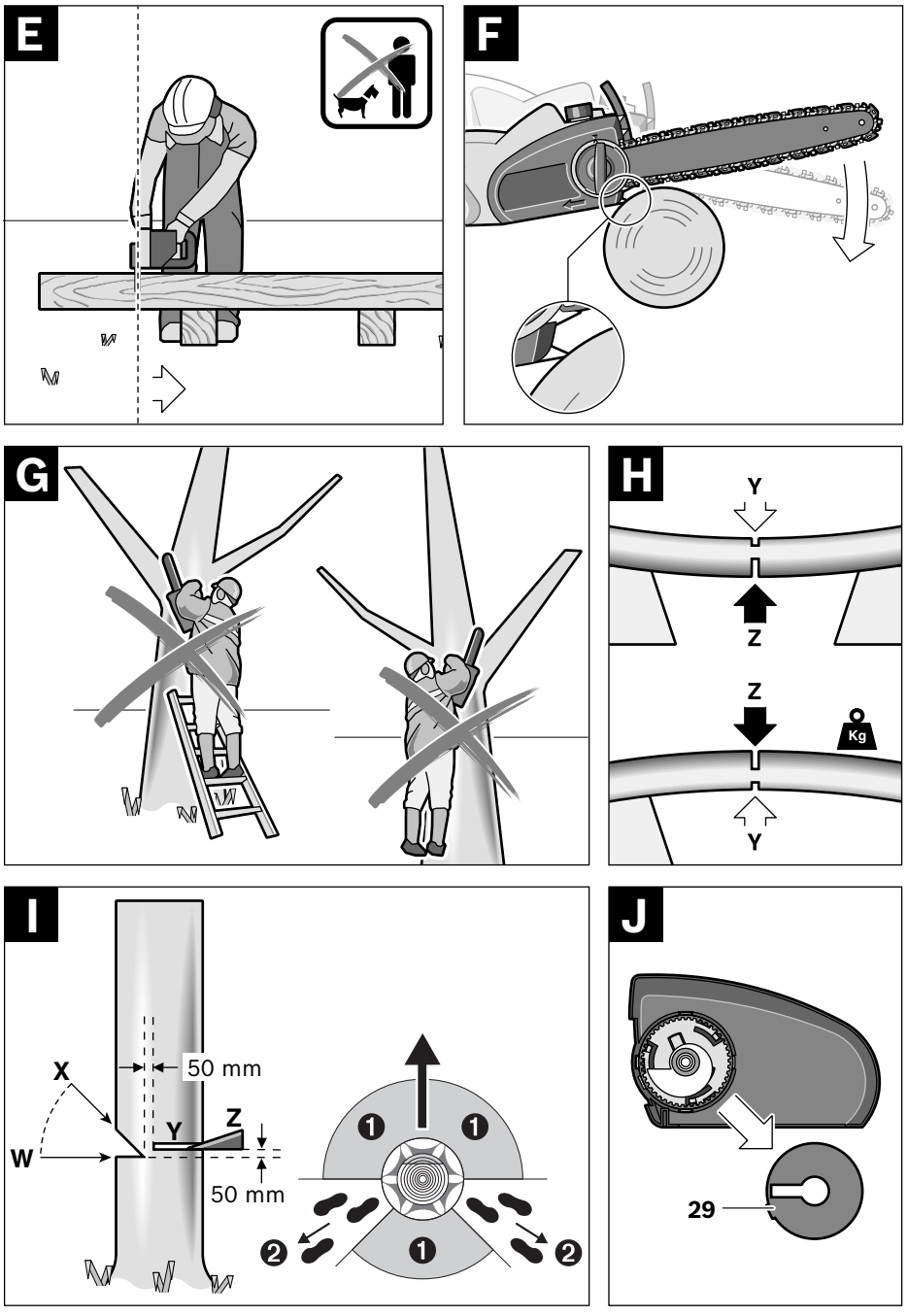

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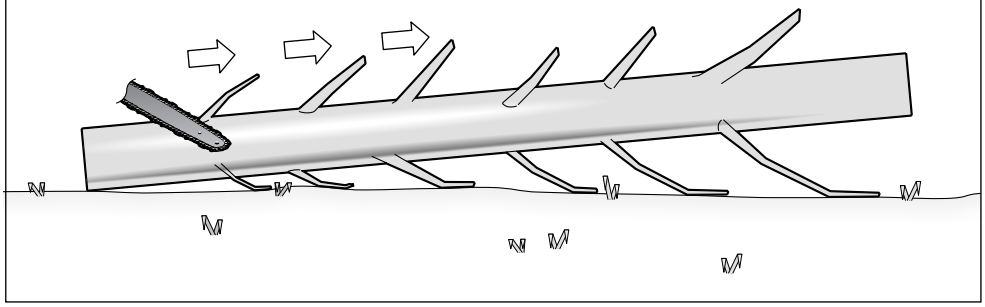

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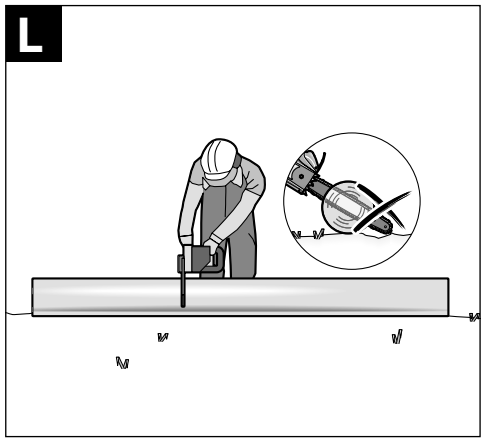

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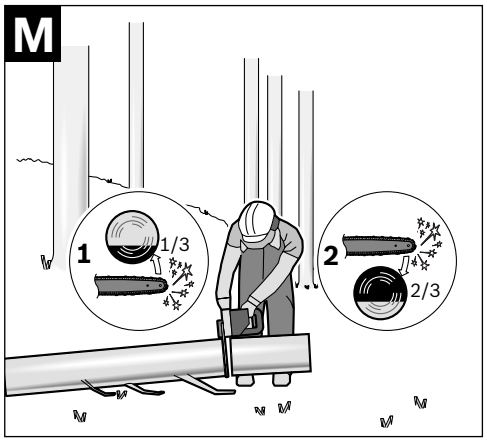

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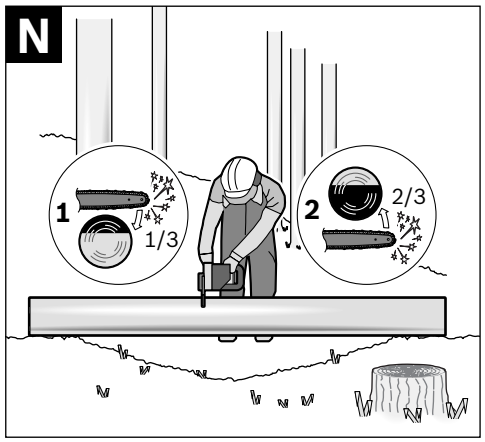

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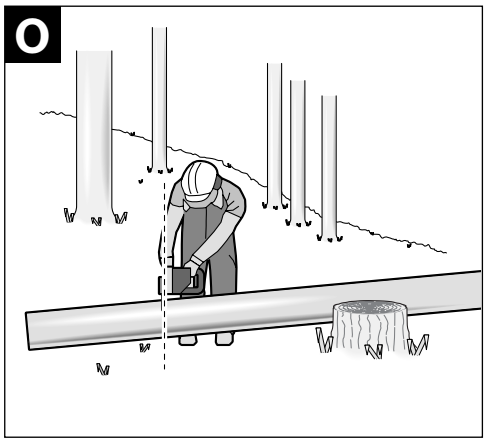

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Safety Notes

Explanation of symbols

Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Remove the plug from the socket or mains immediately before carrying out any adjustments, servicing or maintenance or if the cable is damaged or cut.

Do not use the machine in the rain or leave it outdoors when it is raining.

Obtain and wear eye and ear protection at all times while operating the power tool.

The kickback brake and the run-down brake stop the chain saw within short time.

General Power Tool Safety Warnings

WARNING **Read all safety warnings and all instructions.** Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term “power tool” in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

1) Work area safety

a) Keep work area clean and well lit. Cluttered or dark areas invite accidents.

b) Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.

c) Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

2) Electrical safety

a) Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.

b) Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.

c) Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.

d) Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges and moving parts. Damaged or entangled cords increase the risk of electric shock.

e) When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.

f) If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply. Use of an RCD reduces the risk of electric shock.

3) Personal safety

a) Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.

b) Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

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c) Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.

d) Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.

e) Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.

f) Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.

g) If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.

4) Power tool use and care

a) Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.

b) Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.

c) Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.

d) Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.

e) Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.

f) Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

g) Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

5) Service

a) Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

Chain Saw Safety Warnings

- **Keep all parts of the body away from the saw chain when the motor is operating. Before you start the chain saw, make sure the saw chain is not contacting anything.** A moment of inattention while operating chain saws may cause entanglement of your clothing or body with the saw chain.
- **Hold the power tool by insulated gripping surfaces only, because the saw chain may contact hidden wiring or its own cord.** Saw chains contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

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- **Always hold the chain saw with your right hand on the rear handle and your left hand on the front handle.** Holding the chain saw with a reversed hand configuration increases the risk of personal injury and should never be done.
- **Wear safety glasses and hearing protection. Further protective equipment for head, hands, legs and feet is recommended.** Adequate protective clothing will reduce personal injury by flying debris or accidental contact with the saw chain.
- **Do not operate a chain saw in a tree.** Operation of a chain saw while up in a tree may result in personal injury.
- **Always keep proper footing and operate the chain saw only when standing on fixed, secure and level surface.** Slippery or unstable surfaces such as ladders may cause a loss of balance or control of the chain saw.
- **When cutting a limb that is under tension be alert for spring back.** When the tension in the wood fibres is released the spring loaded limb may strike the operator and/or throw the chain saw out of control.
- **Use extreme caution when cutting brush and saplings.** The slender material may catch the saw chain and be whipped toward you or pull you off balance.
- **Carry the chain saw by the front handle with the chain saw switched off and away from your body. When transporting or storing the chain saw, always fit the guide bar cover.** Proper handling of the chain saw will reduce the likelihood of accidental contact with the moving saw chain.
- **Follow instructions for lubricating, chain tensioning and changing accessories.** Improperly tensioned or lubricated chain may either break or increase the chance for kickback.
- **Keep handles dry, clean, and free from oil and grease.** Greasy, oily handles are slippery causing loss of control.
- **Cut wood only. Don't use chain saw for purposes not intended. For example: do not use chain saw for cutting plastic, masonry or non-wood building materials.** Use of the chain saw for operations different than intended could result in a hazardous situation.

Causes and operator prevention of kickback:
– Kickback may occur when the nose or tip of the guide bar touches an object, or when the wood closes in and pinches the saw chain in the cut.
– Tip contact in some cases may cause a sudden reverse reaction, kicking the guide bar up and back towards the operator.
– Pinching the saw chain along the top of the guide bar may push the guide bar rapidly back towards the operator.
– Either of these reactions may cause you to lose control of the saw which could result in serious personal injury. Do not rely exclusively upon the safety devices built into your saw. As a chain saw user, you should take several steps to keep your cutting jobs free from accident or injury.
Kickback is the result of tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below:

- **Maintain a firm grip, with thumbs and fingers encircling the chain saw handles, with both hands on the saw and position your body and arm to allow you to resist kickback forces.** Kickback forces can be controlled by the operator, if proper precautions are taken. Do not let go of the chain saw.
- **Do not overreach and do not cut above shoulder height.** This helps prevent unintended tip contact and enables better control of the chain saw in unexpected situations.
- **Only use replacement bars and chains specified by the manufacturer.** Incorrect replacement bars and chains may cause chain breakage and/or kickback.
- **Follow the manufacturer's sharpening and maintenance instructions for the saw chain.** Decreasing the depth gauge height can lead to increased kickback.
- **Children and juveniles, with the exception of apprentices older than 16 years and under supervision, may not operate the chain saw. The same applies for persons who do not or do not sufficiently know how to handle the chain saw.** The operating instructions should always be ready to hand. Persons unfit or tired must not operate the chain saw.

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- **Always ensure all handles and guards are fitted when using the machine.** Never attempt to use an incomplete machine or one fitted with an unauthorized modification.

It is recommended that the first time user should have practical instruction in the use of the chainsaw and the protective equipment from an experienced operator. The initial practice should be cutting logs on a saw horse or cradle.

- **Always wait until the machine has come to a complete stop before placing it down.** The tool insert can jam and lead to loss of control over the power tool.
- **Never use the machine with a damaged cable. Do not touch the damaged cable and pull the mains plug when the cable is damaged while working.** Damaged cables increase the risk of an electric shock.

Functional Description

Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Intended Use

The power tool is intended for sawing wood such as wooden beams, planks, branches, tree trunks, etc., and for sawing of trees. Cuts can be sawed with or across the grain.

This power tool is not suitable for sawing mineral materials.

Delivery Scope

Carefully remove the machine from its packaging and check if the following parts are complete:

– Chain saw
– Cover
– Chain
– Chain bar
– Chain guard
– Saw chain oil (80 ml)
– Operating instructions

When parts are missing or damaged, please contact your dealer.

Product Features

The numbering of the product features refers to the illustration of the machine on the graphics page.

1 Rear handle
2 On/Off switch
3 Lock-off button for On/Off switch
4 Oil filler cap
5 Activation lever for kickback brake (hand guard)
6 Deactivation mark “for kickback brake”
7 Front handle
8 Serial number
9 Nose sprocket (AKE 35-19 S/AKE 40-19 S)
10 Chain guard
11 Saw chain
12 Chain bar
13 Gripping teeth
14 Chain-tensioning ring (red)
15 Locking knob
16 Cover
17 Symbol for rotation and cutting direction
18 Drive sprocket
19 Oil outlet
20 Guide fin for chain bar
21 Fastening bolt
22 Chain catch bolt
23 Chain tensioning catch
24 Power plug**
25 Extension cable*
26 Oil level gauge
27 Ventilation slots
28 Red dot
29 Protective lid of chain-tensioning mechanism

**** country specific**

***Accessories shown or described are not part of the standard delivery scope of the product. A complete overview of accessories can be found in our accessories program.**

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Technical Data

Chain saw		AKE 30-19 S	AKE 35-19 S	AKE 40-19 S
Article number		3 600 H36 D..	3 600 H36 E..	3 600 H36 F..
Rated power input	W	1900	1900	1900
Chain speed (no-load)	m/s	12	12	12
Chain bar length	cm	30	35	40
Chain type		3/8" – 90	3/8" – 90	3/8" – 90
Drive link thickness	mm	1.1 (0.043")	1.1 (0.043")	1.1 (0.043")
Amount of drive links		45	52	57
Oil reservoir capacity	ml	200	200	200
Automatic chain oiler		●	●	●
Toolless chain tensioning (SDS)		●	●	●
Nose sprocket		–	●	●
Kickback brake		●	●	●
Run down brake		●	●	●
Metal gripping teeth		●	●	●
Weight according to EPTA-Procedure 01/2003	kg	4.3	4.4	4.5
Protection class		⧈/II	⧈/II	⧈/II

The values given are valid for nominal voltages [U] of 230/240 V. For lower voltage and models for specific countries, these values can vary.

Please observe the article number on the type plate of your machine. The trade names of the individual machines may vary.

Starting cycles generate brief voltage drops. Interference with other equipment/machines may occur in case of unfavourable mains system conditions. Malfunctions are not to be expected for system impedances below 0.25 ohm.

Noise/Vibration Information

Measured sound values determined according to 2000/14/EC.

Typically the A-weighted noise levels of the product are: Sound pressure level 95 dB(A); sound power level 103 dB(A). Uncertainty K=3 dB.

Wear hearing protection!

Vibration total values (triax vector sum) determined according to EN 60745:
Vibration emission value a_h=6.0 m/s^2, Uncertainty K=1.5 m/s^2.

The vibration emission level given in this information sheet has been measured in accordance with a standardised test given in EN 60745 and may be used to compare one tool with another. It may be used for a preliminary assessment of exposure.
The declared vibration emission level represents the main applications of the tool. However if the tool is used for different applications, with different accessories or poorly maintained, the vibration emission may differ. This may significantly increase the exposure level over the total working period.
An estimation of the level of exposure to vibration should also take into account the times when the tool is switched off or when it is run-

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ning but not actually doing the job. This may significantly reduce the exposure level over the total working period.
Identify additional safety measures to protect the operator from the effects of vibration such as: maintain the tool and the accessories, keep the hands warm, organisation of work patterns.

Declaration of Conformity CE

We declare under our sole responsibility that the product described under “Technical data” is in conformity with the following standards or standardization documents: EN 60745 according to the provisions of the directives 2004/108/EC, 2006/42/EC, 2000/14/EC.
EC Type Certification No. 3400653.01 CE by notified testing agency No. 2140.
2000/14/EC: Guaranteed sound power level 105 dB(A).
Conformity assessment procedure according to Annex V.

Equipment category: 6

Technical file at:
Bosch Lawn and Garden Ltd., PT-LG/EAE, Stowmarket, Suffolk IP14 1EY, England

Dr. Egbert Schneider	Dr. Eckerhard Strötgen
Senior Vice President Engineering	Head of Product Certification

ppa. i.V.

Robert Bosch GmbH, Power Tools Division
D-70745 Leinfelden-Echterdingen
19.01.2010

Assembly

For Your Safety

- **Warning! Switch off, remove plug from mains before adjusting, cleaning or if cable is cut, damaged or entangled.**
- **Caution! Do not touch the rotating chain.**
- **Do not operate the chain saw near other people, children or animals. Do not operate the chain saw after drinking alcohol or under the influence of intoxicating drugs or medication.**

Electrical Safety

Your machine is double insulated for safety and requires no earth connection. The operating voltage is 230 V AC, 50 Hz (for non-EU countries 220 V, 240 V as applicable). Only use approved extension cables. Contact your Bosch Service Centre for details.

Only extension cables of design type H07 RN-F or IEC (60245 IEC 66) are permitted for use.

If you want to use an extension cable when operating your product, only the following cable dimensions should be used:

– 1.0 mm^2: max. length 40 m
– 1.5 mm^2: max. length 60 m
– 2.5 mm^2: max. length 100 m

It is recommended for increased electrical safety to use a Residual Current Device (RCD) with a tripping current of not more than 30 mA. Always check your RCD every time you use it.

For products **not sold in GB**:
WARNING: For your safety, it is required that the plug attached to the machine is connected with the extension cord. The coupling of the extension cord must be protected against splash water, be made of rubber or coated with rubber. The extension cord must be used with a cable strain relief.

The connection lead must be inspected for signs of damage at regular intervals and may only be used if in perfect conditions.

If the supply cord is damaged, it must be replaced by a Bosch Service Centre.

Products sold in GB only: Your product is fitted with an BS 1363/A approved electric plug with internal fuse (ASTA approved to BS 1362).
If the plug is not suitable for your socket outlets, it should be cut off and an appropriate plug fitted in its place by an authorised customer service agent. The replacement plug should have the same fuse rating as the original plug.
The severed plug must be disposed of to avoid a possible shock hazard and should never be inserted into a mains socket elsewhere.
Products sold in AUS and NZ only: Use a residual current device (RCD) with a rated residual current of 30 mA or less.

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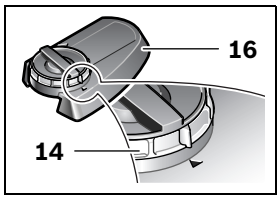
Mounting and Tensioning the Chain Saw

- ▶ **Do not connect the chain saw to mains before it is completely assembled.**
- ▶ **Always wear protective gloves when handling the chain.**

Chain and Chain Bar Assembly (see figure A)

– Unpack all parts carefully.

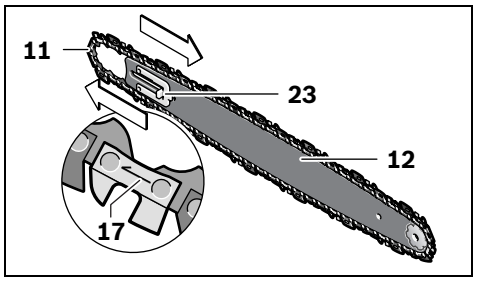
– Align the 2 arrows on the chain-tensioning ring **14** and the cover **16** (⏭).



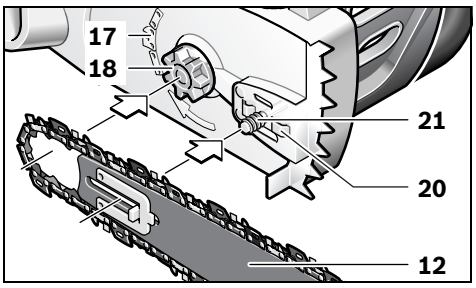
– Place the chain saw on any suitable flat surface.

- ▶ **Use only chains with a drive link thickness of 1.1 mm.**

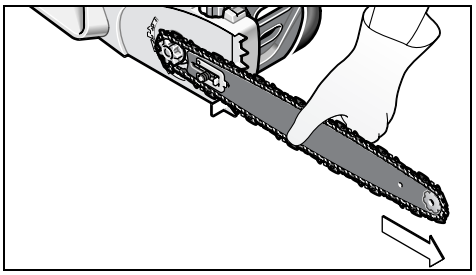
– Slide the saw chain **11** in the slot around the chain bar **12**. Ensure the saw chain is in the correct running direction by comparing the saw chain with the rotation symbol **17**. Take care that the chain tensioning catch **23** faces outward. The saw chain **11** is slid on easier when holding the chain bar **12** vertical.



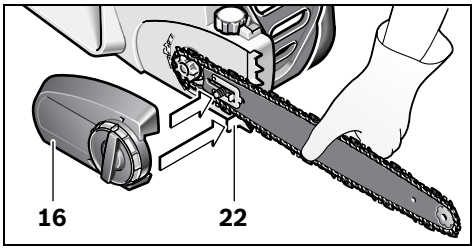
– Fit the chain links around the drive sprocket **18** and mount the chain bar **12** in such a manner that the guide fins **20** in front and behind the fastening bolt **21** engage into the keyway of the chain bar **12**.



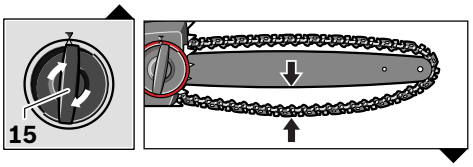
– Check if all parts are seated properly and hold the chain bar and the chain in this position.



– Fit the cover **16** exactly, check that arrows are still aligned and take care that the chain catch bolt **22** engages into the groove of the cover plate **16**.



– Lightly tighten the cover **16** with the locking knob **15**.



– The chain is not yet tensioned. The saw chain is tensioned as described in section “Tensioning the Saw Chain”.

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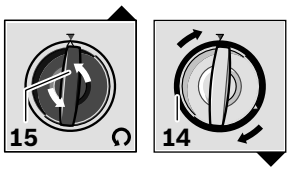
Tensioning the Saw Chain (see figure A)

Always check the chain tension before use, after the first cuts and regularly during use approx. every 10 minutes. Upon initial operation, new chains can lengthen considerably.

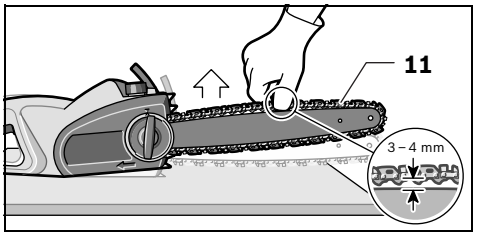
The chain life of the saw chain mainly depends upon sufficient lubrication and correct tensioning.

Avoid tensioning the chain if it is hot, as this will cause the chain to become overtensioned and face too tightly against the chain bar when it cools down.

– Place the chain saw on any suitable flat surface.
– Turn locking knob **15** approx. 1 – 3 turns anticlockwise to loosen the chain bar.
– Check if the chain links are correctly located in the slot around the chain bar **12** and on the drive sprocket **18**.



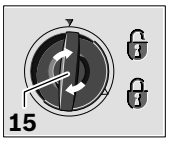
– Turn the red chain-tensioning ring **14** clockwise ratcheting until the correct chain tension is reached. The ratchet mechanism prevents the chain tension from loosening. If the chain-tensioning ring **14** is hard to turn, loosen the locking knob **15** further in anticlockwise direction. The locking knob **15** may also turn, when adjusting the chain-tensioning ring **14**.
– The saw chain **11** is correctly tensioned when it can be raised approx. 3 – 4 mm from the chain bar in the centre. This should be done by using one hand to raise the saw chain against the weight of the machine.



– If the saw chain **11** is overtensioned, turn the chain-tensioning ring **14** in anticlockwise direction.

Clamping the Chain Bar

– When the chain **11** is tensioned, clamp the chain bar **12** by turning the locking knob **15** in clockwise direction. Do not use a tool for this.



Saw-chain Lubrication (see figures A – B)

Note: The chain saw is not supplied filled with oil. It is essential to fill with oil before use. Operating the chain saw without chain oil or when the oil level is below the minimum mark will result in damage to the chain saw.

Chain life and cutting capacity depend on optimum lubrication. Therefore, the chain is automatically lubricated with chain oil during operation via the oil outlet **19**.

Filling the oil reservoir:

– Set chain saw on any suitable surface with the oil filler cap **4** facing upward.
– Clean area around the oil filler cap **4** with a cloth and unscrew the cap.
– Do not remove filter insert during filling.
– Add Bosch biodegradable chain saw oil until reservoir is full.
– Avoid dirt or debris from entering the oil reservoir. Screw on oil filler cap **4** again and tighten.

Note: Important: To allow venting of the oil reservoir, small breather channels are provided between the oil filler cap and the strainer. To prevent leakage ensure chain saw is left in a horizontal position (oil filler cap **4** uppermost) when not in use.

Note: It is important to use only the recommended biodegradable oil to avoid damage to the chain saw. Never use recycled/old oil. Use of non approved oil will invalidate the warranty.

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Operation

Initial Operation

▶ **Observe correct mains voltage! The voltage of the power source must agree with the voltage specified on the nameplate of the machine. Power tools marked with 230 V can also be operated with 220 V.**

Switching On and Off

Hold the chain saw as described in section “Working with the Chain Saw”.

To **start** the machine, **first** push the lock-off button for the On/Off switch **3** and **then** press the On/Off switch **2** and keep it pressed.

When the machine is running, the lock-off button can be released again.

To switch off the machine, **release** the On/Off switch **2**.

Note: For safety reasons, the On/Off switch **2** cannot be locked; it must remain pressed during the entire operation.

Note: Do not stop chain saw after sawing by actuating the front hand guard **5** (activating the kickback brake).

Run-down Brake/Kickback Brake (see figure D)

The chain saw is equipped with two safety features:

The **run-down brake** stops the saw chain after releasing the On/Off switch **2**.

The **kickback brake** is a safety mechanism activated through the front hand guard **5** when kickback occurs. Chain stops immediately.

The following function check should be carried out at regular intervals. Push the front hand guard **5** forward (position ❷) so that the red dot **28** under the mark **6** becomes visible, and briefly start the chain saw. The saw chain must not start. To deactivate the kickback brake again, pull the front hand guard **5** back (position ❶), so that the red dot **28** under the mark **6** is covered.

Working with the Chain Saw

Before Cutting

Before starting operation and periodically during cutting, carry out the following checks:

– Is the chain saw in a fail-safe condition?
– Is the oil reservoir filled? Check oil level gauge prior to starting and regularly during operation. Refill oil when oil level has reached the bottom edge of the viewing glass. The oil tank filling will last approx. 15 minutes, depending on sawing intensity and stops.
– Is the saw chain properly tensioned and sharp? Check chain tension every 10 minutes during operation. Upon initial operation, new chains can lengthen considerably. The condition of the chain influences the cutting performance. Only a sharp chain protects from overload.
– Is the kickback brake deactivated and its function ensured?
– Are you wearing the required protective equipment? Wear safety glasses and hearing protection. Further protective equipment for head, hands, legs and feet is recommended. Suitable protective clothing reduces the danger of injury from thrown about cutting material and accidental touching of the saw chain.

Kickback (see figure D)

Kickback is the sudden backward/upward motion of the chain saw, occuring when the chain (at the tip of the chain bar) comes in contact with a log or wood, or when the chain becomes jammed.

When kickback occurs, the chainsaw reacts unpredictable and can cause heavy injuries to the operator or bystanders.

Particular attention must be given when sawing sidewards, slanted or during length cuts, as the gripping teeth **13** usually can not be applied.

To avoid kickback:

– Saw with the chain bar at a flat angle.
– Never work with a loose, widely stretched or heavily worn out saw chain.
– Sharpen the saw chain as specified.
– Never saw above shoulder height.

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– Never work with the tip of the chain.
– Always hold a chain saw firmly with both hands.
– Always use a Bosch low-kickback saw chain.
– Apply the metal gripping teeth **13** for leverage.
– Ensure correct chain tension.

General Behaviour (see figures D – G)

Always hold the chain saw firmly with both hands. Front handle with the left hand and rear handle with the right hand. Fully grip both handles with thumb and fingers at all times during operation. Never operate chain saw using only one hand. Ensure power cord is located to the rear, and keep it out of the range of the saw chain and cutting material; position yourself in such a manner that the mains cable can not get caught in branches and twigs.

Use the chain saw only with secure footing. Hold the chain saw at the right-hand side of your body.

The chain must be running at full speed before it makes contact with the wood. Use the gripping teeth **13** to support the chain saw on the wood. Use the gripping teeth as a leverage point while cutting.

Reset the gripping teeth at a lower point when sawing thicker logs or tree trunks. For this, pull the chain saw slightly backwards until the gripping teeth release, and reposition at lower level to continue sawing. Do not remove the chain saw completely out of the cut.

Do not force the saw chain while cutting, let the chain do the work, using the gripping teeth **13** to apply minimal leverage pressure.

Never operate the chain saw with arms fully extended. Do not attempt to saw areas which are difficult to reach, or on a ladder. Never saw above shoulder height.

Sawing is optimized when the chain speed remains steady during cutting.

Beware when reaching the end of the cut. The weight of the chain saw changes unexpectedly as it cuts free from the wood. Danger of injury to the legs and feet.

Always remove the chain saw from a wood cut while the saw chain is running.

Cutting Logs (see figures E and H)

When cutting logs, observe the following safety instructions:

Support logs so that the face sides at the cut do not close in against each other, which would result in the chain being jammed.

Position and set short logs safely before sawing.

Saw only wood or wooden objects. When sawing, always take care to avoid hitting stones, nails, etc., as these could be thrown up, could cause damage to the chain, or could result in serious injury to the operator or bystanders.

Keep a running chain saw clear of wire fencing or the ground.

Use of the saw to thin out branches or bushes is not approved.

Length cuts must be carried out with particular care, as leverage with the gripping teeth **13** is not possible. Saw at a flat angle to avoid kickback.

When working on a slope, operate above or to the side of the trunk or laying tree.

Be careful not to trip over tree stumps, branches, roots, etc.

Cutting Wood under Tension (see figure H)

▶ **Be extremely careful when sawing wood, branches or trees under tension. Leave saw jobs like these to trained professionals.** There is a high risk of accidents.

When sawing logs supported on both ends, start the cut from above (**Y**) about one third of the diameter into the log and then finish the cut at the same spot from below (**Z**), in order to avoid splitting of the log or jamming of the saw. Avoid contact of the saw chain with the ground.

When sawing logs supported on only one end, start the cut from below (**Y**) about one third of the diameter into the log and then finish the cut at the same spot from above (**Z**), in order to avoid splitting of the log or jamming of the saw.

Felling Trees (see figure I)

▶ **Always wear hard hat to protect head against falling branches.**

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- **The chain saw may only be used to fell trees smaller in diameter than the length of the chain bar.**
- **Secure the work area. Ensure no persons or animals are in the vicinity of the falling tree (❶).**
- **Never attempt to free a jammed chain saw with the motor running. Use wooden wedges to free a jammed chain saw.**

When cutting and felling operations are being performed by two or more persons at the same time, the felling operations should be separated from the cutting operations by a distance of at least twice the height of the tree being felled. Trees should not be felled in a manner that would endanger any person, strike any utility line or cause any property damage. If the tree does make contact with a utility line, the company should be notified immediately.

The chain saw operator should keep on the uphill side of the terrain as the tree is likely to roll or slide downhill after it is felled.

An escape path (❷) should be planned and cleared as necessary before cuts are started. The escape path should extend back and diagonally to the rear of the expected line of fall.

Before felling is started, consider the natural lean of the tree, the location of larger branches and the wind direction to judge which way the tree will fall.

Remove dirt, stones, loose bark, nails, staples, and wire from the tree.

Notching undercut: Make the notch (**X – W**) 1/3 the diameter of the tree, perpendicular to the direction of fall. Make the lower horizontal notching cut first. This will help to avoid pinching either the saw chain or the guide bar when the second notch is being made.

Felling back-cut: Make the felling back-cut (**Y**) at least 50 mm higher than the horizontal notching cut. Carry out the felling back-cut parallel to the horizontal notching cut. Make the felling back-cut so that enough wood is left to act as a hinge. The hinge-wood keeps the tree from twisting and falling in the wrong direction. Do not cut through the hinge.

As the felling gets close to the hinge, the tree should begin to fall. If there is any chance that the tree may not fall in the desired direction or may rock back and bind the saw chain, stop cutting before the felling back-cut is complete and use wedges of wood, plastic or aluminium to open the cut and drop the tree along the desired line of fall.

When the tree begins to fall, remove the chain saw from the cut, stop the motor, put the chain saw down, then use the retreat path planned. Be alert for overhead limbs falling and watch your footing.

Drive a wedge (**Z**) into the horizontal cut to make the tree fall.

When the tree begins to fall, leave the danger area via the retreat path planned. Be alert for overhead limbs falling and watch your footing.

Limbing a Tree (see figure K)

Limbing is removing the branches from a fallen tree. When limbing, leave larger lower limbs to support the log off the ground. Remove the small limbs in one cut as illustrated in the figure. Branches under tension should be cut from the bottom up to avoid binding the chain saw.

Bucking a Log (see figures L – O)

Bucking is cutting a log into lengths. It is important to make sure your footing is firm and your weight is evenly distributed on both feet. When possible, the log should be raised and supported by the use of limbs, logs or chocks. Follow the simple directions for easy cutting.

When the log is supported along its entire length, it is cut from the top (overbuck).

When the log is supported on one end, cut 1/3 the diameter from the underside (underbuck). Then make the finished cut by overbucking to meet the first cut.

When the log is supported on both ends, cut 1/3 the diameter from the top overbuck. Then make the finished cut by underbucking the lower 2/3 to meet the first cut.

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When bucking on a slope, always stand on the uphill side of the log. When “cutting through”, release the cutting pressure near the end of the cut without relaxing your grip on the chain saw handles in order to maintain complete control.

Don’t let the chain contact the ground. After completing the cut, wait for the saw chain to stop before you move the chain saw. Always stop the chain saw motor before moving from tree to tree.

Troubleshooting

The following chart lists problem symptoms, possible causes and corrective action, if your machine does not operate properly. If these do not identify and correct the problem, contact your service agent.

▶ **Warning: Switch off and remove plug from mains before investigating fault.**

Problem	Possible Cause	Corrective Action
Chain saw fails to operate	Kickback brake is activated	Pull activation lever for kickback brake (hand guard) **5** back in position ❶, so that the red dot **28** is covered
	Plug not connected	Connect plug
	Mains socket faulty	Use another socket
	Fuse faulty/blown	Replace fuse
	Extension cable damaged	Try without extension cable
Chain saw operates intermittently	Mains cable defective	Check mains cable and have it replaced, if required
	External or internal wiring defect	Contact your Bosch Service Centre
	On/Off switch **2** defective	Contact your Bosch Service Centre
Saw chain dry	No oil in reservoir	Refill oil
	Vent in oil filler cap **4** clogged	Clean oil filler cap **4**
	Oil passage clogged	Clean oil passage
Brake does not stop saw chain	Kickback brake/run-down brake defective	Contact your Bosch Service Centre
Saw chain/guide bar hot	No oil in reservoir	Refill oil
	Vent in oil filler cap **4** clogged	Clean oil filler cap **4**
	Oil passage clogged	Clean oil passage
	Chain tension too high	Adjust chain tension
	Dull saw chain	Sharpen saw chain or replace
Chain saw rips, vibrates, does not saw properly	Chain tension too loose	Adjust chain tension
	Dull saw chain	Sharpen saw chain or replace
	Chain worn out	Replace saw chain
	Chain teeth are facing in the wrong direction	Reassemble with chain in correct direction

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Maintenance and Service

Maintenance and Cleaning

▶ **Warning! Switch off, remove plug from mains before adjusting, cleaning or if cable is cut, damaged or entangled.**

Note: To ensure long and reliable service, carry out the following maintenance regularly.

Regulary check the chain saw for obvious defects such as loose, dislodged or damaged saw chain and chain bar, loose fixings and worn or damaged components.

When disassembling the saw chain, take care that the chain is first loosened with the chain tensioning ring **14**. Disassembly of the chain saw without first loosening the saw chain can damage the chain saw.

Check that covers and guards are undamaged and correctly fitted. Carry out necessary maintenance or repairs before using.

If the chain saw should fail despite the care taken in manufacture and testing, repair should be carried out by an authorised customer services agent for Bosch power tools.

Note: Before returning the chain saw, ensure all oil in the oil reservoir has been emptied. For this, remove the sieve from the reservoir, empty the reservoir and replace the sieve again.

In all correspondence and spare parts orders, please always include the 10-digit article number given on the type plate of the chain saw.

Replacing/Changing the Saw Chain and Chain Bar (see figure A)

Check the saw chain and chain bar according to section “Tensioning the Saw Chain”.

The circular groove of the chain bar will wear particularly on the lower edge with time. When replacing the saw chain, turn the chain bar by 180° to allow even wear, thus extending chain bar life.

Reverse the chain tensioning catch **23** by removing the screws and refitting it on the opposited side.

Check the drive sprocket **18**. If it is worn out or damaged due to strain, have it exchanged by an authorized Bosch after-sales service.

Sharpening the Saw Chain

Have your chain sharpened professionally at your authorized Bosch after-sales service or sharpen the chain yourself using the Bosch sharpening kit or the Dremel Multi power tool with the appropriate grinder (1453). Observe the sharpening instructions provided with the sharpening kit.

Checking the Automatic Oiler

Proper functioning of the automatic saw chain oiler can be checked by running the chain saw and pointing the tip of the chain bar towards a piece of cardboard or paper on the ground. Do not touch the ground with the chain and ensure a safety clearance of 20 cm. If an increasing oil pattern developes, the automatic oiler is operating fine. If there is no oil pattern despite a full oil reservoir, see section “Troubleshooting” or contact your authorized Bosch after-sales service.

After Use/Storage

Clean the moulded plastic housing of the chain saw using a soft brush and clean cloth. Do not use water, solvents or polishes. Remove all debris, especially from the motor cooling vents.

After 1 – 3 hours of use, remove the cover **16**, the chain bar **12** and the saw chain **11**, and clean them using a brush.

Clean the area under the cover **16**, the drive sprocket **18** and the chain bar assembly from adherant debris using a brush. Clean the oil outlet **19** with a clean cloth.

If the chain tensioning mechanism in the cover **16** becomes difficult to operate, remove the protective lid **29**, turn the locking knob **15** and the chain-tensioning ring **14** against each other, so that debris is loosened from the mechanism and can be discarded. Carefully strike or tap out debris from the cover **16**. If the mechanism is heavily clogged, use a soft brush or compressed air for cleaning. Do not use tools of any kind. (see figure J)

If the chain saw is to be stored for a longer period of time, clean the saw chain **11** and the chain bar **12**.

Store the chain saw in a secure, dry place, out of the reach of children.

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Do not place other objects on the chain saw.

Please take care to place down the chain saw with the oil filler cap **4** facing upward.

When storing in the sales packaging, the oil reservoir must be completely emptied.

Accessories

Saw chain

AKE 30-19 S . . . . . F 016 800 256

AKE 35-19 S . . . . . F 016 800 257

AKE 40-19 S . . . . . F 016 800 258

Chain bar with saw chain

AKE 30-19 S . . . . . F 016 800 259

AKE 35-19 S . . . . . F 016 800 260

AKE 40-19 S . . . . . F 016 800 261

Cleaning

Chain sharpening/cleaning kit . . F 016 800 262

Saw chain oil, 1 litre 2 607 000 181

Additional accessories

Protective gloves 2 607 000 134

Safety goggles . . . . . F 016 800 178

SNR 19 hearing protection
(sounding proofing level 19 dB(A))
. . . . . 2 607 990 042

SNR 24 hearing protection
(sounding proofing level 24 dB(A))
. . . . . 2 607 990 043

After-sales Service and Customer Assistance

Our after-sales service responds to your questions concerning maintenance and repair of your product as well as spare parts. Exploded views and information on spare parts can also be found under:
www.bosch-pt.com
Our customer service representatives can answer your questions concerning possible applications and adjustment of products and accessories.

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Disposal

The machine, accessories and packaging should be sorted for environmental-friendly recycling.

Only for EC countries:

Do not dispose of power tools into household waste!
According the European Guideline 2002/96/EC for Waste Electrical and Electronic Equipment and its implementation into national right, power tools that are no longer usable must be collected separately and disposed of in an environmentally correct manner.

Subject to change without notice.